

Remarks

I. Status of the Application and Claims

As originally filed, the present application had a total of 22 claims. During prosecution, these were cancelled and new claims 29-40 were added. With the exception of claim 40, these claims have all been rejected in the present Office Action.

II. The Amendments

Claim 29 (and by extension its dependent claims) have been amended by expanding its proviso to include branched chain C₁-C₆ alkyls. The proviso now requires that when R¹=R³=R⁴=R⁵=H, R² is not hydrogen or a straight *or branched* C₁-C₆ alkyl, and when R²=R³=R⁴=R⁵=H, R¹ is not hydrogen or a straight *or branched* C₁-C₆ alkyl. Support for this change may be found within the claim itself. In addition, claim 40 has been amended to put it into an independent format.

An Appendix is attached which illustrates the amendments made to claims. These amendments do not add new matter to the application and their entry is therefore respectfully requested.

III. Objection to Claim 40

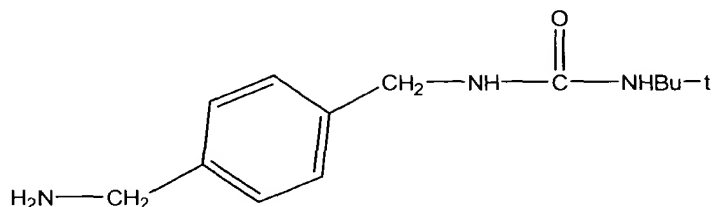
On page 3 of the Office Action, the Examiner objects to claim 40 as being dependent upon a rejected base claims but states that it would otherwise be allowable. In response, Applicants have amended claim 40 to make it independent. It is therefore respectfully submitted that the Examiner's objection has been obviated.

The Rejections

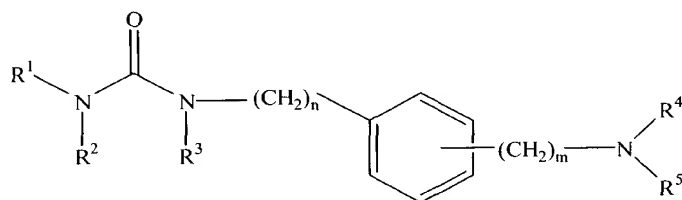
On pages 2 and 3 of the Office Action, the Examiner rejects claims 29-39 under 35 U.S.C. §102 based upon the allegation that it is anticipated by EP 325397 (and the CAPLUS abstract of this reference). In particular, the Examiner argues that compound RN=124885-17-2 in the reference falls within the scope of Applicants' claims.

Applicants respectfully traverse this rejection for the claims as amended herein.

Compound RN=124885-17-2 has the following structure:



Although "Bu-t," is not expressly defined in the abstract received, Applicants assume that this must refer to a t-butyl group. The broadest of Applicants' claims, claim 29, is directed to the following structure:



In order to be anticipated by RN=124885-17-2, R^1 , R^3 , R^4 , and R^5 would have to be H, m and n would have to be 1, and R^2 would have to be a C_4 branched alkyl. Alternatively, R^2 , R^3 , R^4 , and R^5 could be H and R^1 could be a branched C_4 alkyl. However, both of these possibilities are now expressly excluded by the proviso in the claim which states:

when $R^1 = R^3 = R^4 = R^5 = H$, then R^2 is not hydrogen or a straight or branched C_1 - C_6 alkyl and when $R^2 = R^3 = R^4 = R^5 = H$ then R^1 is not hydrogen or a straight or branched C_1 - C_6 alkyl

Applicants therefore respectfully submit that claim 29 is no longer anticipated by the compound cited by the Examiner. The only other independent claim that has been rejected is claim 31 and Applicants respectfully submit that none of the structures shown therein corresponds to RN=124885-17-2. The remaining claims are all directly or indirectly dependent upon claim 29 or claim 31 and incorporate all of the limitations present in these claims. It is therefore submitted that none of the claims now pending are anticipated.

Conclusion

In light of the amendments and discussion above, Applicants submit that all of the Examiner's rejections have been overcome. It is therefore respectfully requested that these rejections be withdrawn and that the claims presently pending in the application be allowed.

If, in the opinion of the Examiner, a phone call may help to expedite the prosecution of this application, the Examiner is invited to call Applicants' undersigned attorney at (202) 419-7013.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

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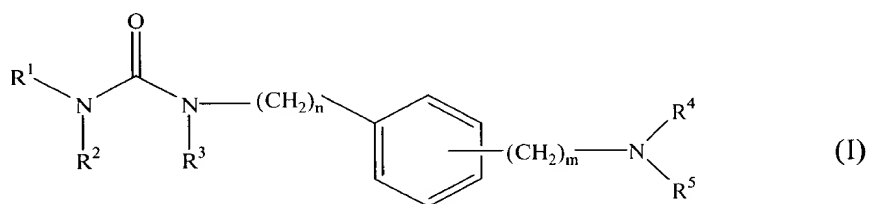
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Appendix

Version with Markings to Show Changes Made

Claims 29 and 40 were amended herein. These claims are shown below with underlined words indicating text that was added and words that are bracketed and highlighted indicating text that was removed.

29. (Twice amended) A compound according to formula I:



wherein

m and n are each and independently an integer from 1-3, and one or more of the hydrogens in the alkylene chain may optionally be substituted by any one of C₁-C₆ alkyl, C₁-C₆ alkoxy, or hydroxy; or

one or more of the methylene groups may optionally be substituted by a heteroatom selected from O, N or S;

R¹ is selected from hydrogen, a branched or straight C₁-C₆ alkyl, C₂-C₆ alkenyl, C₃-C₈ cycloalkyl, C₄-C₈ (alkyl-cycloalkyl) wherein the alkyl is a C₁-C₂ alkyl and the cycloalkyl is a C₃-C₆ cycloalkyl;

R² is selected from any of:

- (i) hydrogen;
- (ii) a straight or branched C₁-C₆ alkyl, C₂-C₆ alkenyl or C₂-C₆ alkynyl;
- (iii) -[(CH₂)_q-aryl], wherein the aryl may optionally be substituted by 1 or 2 substituents Y, wherein each Y is as defined below; and wherein q is an integer from 0 to 3;

- (iv) $-\text{[(CH}_2\text{)}_r\text{-heteroaryl]}$ wherein the heteroaryl has from 5 to 10 atoms, each heteroatom being selected from any of S, N and O and wherein the heteroaryl may be substituted by 1 or 2 substituents Y, wherein each Y is as defined below; and wherein r is an integer from 0 to 3;
- (v) $\text{C}_3\text{-C}_{10}$ cycloalkyl, optionally comprising one or more unsaturations and optionally substituted by one or more heteroaryls, where each heteroaryl has from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (vi) $\text{C}_6\text{-C}_{10}$ aryl, optionally and independently substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O and wherein the heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (vii) a heteroaryl having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;

or R^1 and R^2 may optionally form a heterocyclic ring;

R^3 is selected from any one of:

- (i) hydrogen;
- (ii) a straight or branched $\text{C}_1\text{-C}_6$ alkyl, $\text{C}_2\text{-C}_6$ alkenyl or $\text{C}_2\text{-C}_6$ alkynyl;
- (iii) $-\text{[(CH}_2\text{)}_q\text{-aryl]}$ wherein q is an integer from 0 to 3, and wherein the aryl may optionally be substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (iv) a heteroaryl- $(\text{C}_5\text{-C}_{10}\text{alkyl})$, wherein the heteroaryl has from 5 to 10 atoms, each heteroatom being selected from any of S, N and O, and wherein the aryl and

heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;

- (v) a C₃-C₁₀ cycloalkyl, optionally comprising one or more unsaturations and optionally substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O, and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (vi) $-(C_3-C_6 \text{ cycloalkyl})-(CH_2)_q$ wherein q is an integer from 1 to 3;

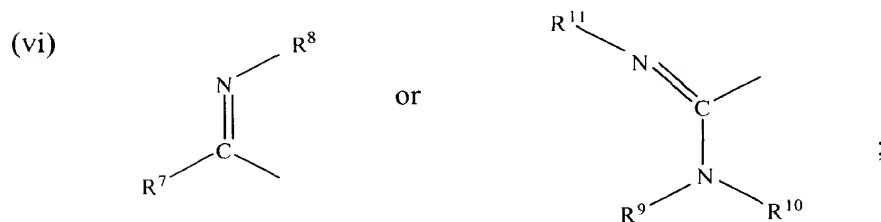
R⁴ is selected from:

- (i) hydrogen;
- (ii) a straight or branched C₁-C₆ alkyl, C₂-C₆ alkenyl or C₂-C₆ alkynyl;
- (iii) $-[(CH_2)_q\text{-aryl}]$ wherein q is an integer from 0 to 3, and wherein the aryl may optionally be substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (iv) heteroaryl-(C₅-C₁₀ alkyl), wherein the heteroaryl has from 5 to 10 atoms, each heteroatom being selected from any of S, N and O, and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (v) a C₃-C₁₀ cycloalkyl, optionally comprising one or more unsaturations and optionally substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O;
and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (vi) a C₆-C₁₀ aryl, optionally and independently substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;

- (vii) a heteroaryl having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein Y is as defined below;

R^5 is selected from:

- (i) hydrogen;
- (ii) a straight or branched C_1 - C_6 alkyl, C_2 - C_6 alkenyl or C_2 - C_6 alkynyl;
- (iii) $-[(CH_2)_q\text{-aryl}]$ wherein q is an integer from 0 to 3, and wherein the aryl may optionally be substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (iv) a heteroaryl- $(C_5$ - C_{10} alkyl), wherein the heteroaryl has from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted 1 or 2 substituents Y, wherein each Y is as defined below;
- (v) a C_3 - C_{10} cycloalkyl, optionally comprising one or more unsaturations and optionally substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O, and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;



wherein R^7 , R^8 , R^9 , R^{10} and R^{11} are each and independently selected from:

- (a) hydrogen;
- (b) a straight or branched C_1 - C_6 alkyl, C_2 - C_6 alkenyl or C_2 - C_6 alkynyl;

- (c) $-\text{[(CH}_2\text{)}_q\text{-aryl]}$ wherein q is an integer from 0 to 3, and wherein the aryl may optionally be substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of the S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;
- (d) a heteroaryl-(C₅-C₁₀ alkyl), wherein the heteroaryl has from 5 to 10 atoms, each heteroatom being selected from any of S, N and O, and wherein the aryl and heteroaryl may optionally and independently be substituted 1 or 2 substituents Y, wherein each Y is as defined below;
- (e) a C₃-C₁₀ cycloalkyl, optionally comprising one or more unsaturations and optionally substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and wherein the aryl and heteroaryl may optionally and independently be substituted 1 or 2 substituents Y, wherein each Y is as defined below;
- (f) a C₆-C₁₀ aryl, optionally and independently substituted by one or more heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O, and wherein the heteroaryl may optionally and independently be substituted by 1 or 2 substituents Y, wherein each Y is as defined below;

or R⁴ and R⁵ may optionally form a heterocyclic ring;

Y is each and independently selected from any of: hydrogen, CH₃; $-(\text{CH}_2)_{p1}\text{CF}_3$; halogen; C₁-C₃ alkoxy; hydroxy; -NO₂; -OCF₃; -CONR^aR^b; -COOR^a; -COR^a; $-(\text{CH}_2)_{p2}\text{NR}^a\text{R}^b$; $-(\text{CH}_2)_{p3}\text{CH}_3$; $(\text{CH}_2)_{p4}\text{SOR}^a\text{R}^b$; $-(\text{CH}_2)_{p5}\text{SO}_2\text{R}^a$; $-(\text{CH}_2)_{p6}\text{SO}_2\text{NR}^a$; C₄-C₈(alkyl-cycloalkyl) wherein the alkyl is a C₁-C₂ alkyl, and the cycloalkyl is a C₃-C₆ cycloalkyl; 1 or 2 heteroaryls having from 5 to 10 atoms, each heteroatom being selected from any of S, N and O; and oxides selected from N-oxides or sulfoxides; and wherein:

R^a and R^b are each and independently selected from hydrogen, a branched or straight C₁-C₆ alkyl, a C₁-C₆ alkenyl, a C₃-C₈ cycloalkyl; and wherein:

p^1, p^2, p^3, p^4, p^5 and p^6 are each and independently 0, 1 or 2;

as well as pharmaceutically acceptable salts, isomers, hydrates, and isoforms thereof,

with the proviso that when $R^1=R^3=R^4=R^5=H$, then R^2 is not hydrogen or a straight or branched C_1 - C_6 alkyl and when $R^2=R^3=R^4=R^5=H$ then R^1 is not hydrogen or a straight or branched C_1 - C_6 alkyl.

40. (Once amended) A compound [**according to claim 32,**] wherein said compound is:

